



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/976,647	10/11/2001	Thomas H. Wright	ASD-15; H6206 (\$1021 CON1	2560
27975	7590	05/21/2004	EXAMINER	
ALLEN, DYER, DOPPELT, MILBRATH & GILCHRIST P.A. 1401 CITRUS CENTER 255 SOUTH ORANGE AVENUE P.O. BOX 3791 ORLANDO, FL 32802-3791			CROSLAND, DONNIE L	
			ART UNIT	PAPER NUMBER
			2636	

DATE MAILED: 05/21/2004

15

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/976,647

Applicant(s)

WRIGHT ET AL.

Examiner

DONNIE L. CROSLAND

Art Unit

2636

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2003.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 59-75 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 59-75 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12-11-03 has been entered.

DETAILED ACTION

Applicants contend that the amendment places patentable features previously claimed in dependent claims 60, 61, 71, and 72 in independent format and accordingly, an interference should be declared.

The mere placement of these claims in independent form does not overcome the rejection as applied to the dependent claims 60, 61, 71.

An interference cannot be initiated since a prerequisite for interference under 37 CFR 1.606 is that the claim be patentable to the applicant subject to a judgment in the interference.

Claim Rejections - 35 USC § 102

Art Unit: 2636

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 59, 62-70, and 75 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Ross et al.

Ross shows an aircraft data transmission system, the aircraft having a data acquisition unit 10 comprising a communication unit 24 located in the aircraft and in communication with the data acquisition unit 10; a cellular infrastructure (col. 4, lines 40-50) in communication with the communication unit 10 after the aircraft has landed, wherein the communication is initiated automatically upon landing of the aircraft; and a data reception unit 32 in communication with the cellular infrastructure, see col.5, lines 48 et seq., wherein after the aircraft has landed, a second switch 14 communicates with the controller 10; further in col. 6, lines 13-36, acquired aircraft data is automatically communicated to the flight center's controller 32 upon the aircraft being downed. The term downed equates to landing, also, see claims 12 and 13.

Accordingly, Ross clearly anticipates these claims in disclosing the automatic activation of a switch associated with the landing or downing of the aircraft in which relevant acquired data is communicated through a cellular infrastructure to a ground base receiver.

With respect to claim 62, Ross discloses a modem, col. 6, and lines 48-51.

With respect to claim 63 an antenna is inherent in cellular infrastructures of Ross.

With respect to claim 64 the recited "router" is inherent in the cellular infrastructure of Ross are conventionally associated with cell infrastructures.

With respect to claim 69 recitation of a digital flight data acquisition unit, Ross discloses controller 10 can be a TI Travelmate 4000, col. 6, lines 37-40.

With respect to claim 67, receiver for data can be a mainframe, col. 5, and lines 1-4.

Claims 65, 68, and 69 are clearly met by Ross as discussed above.

Claim 75 is clearly met by Ross with respect to processors in both the aircraft and the ground station each processing information with respect to a computer readable medium as illustrated in the flow chart in figure 2.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 60, 61, 71, and 72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ross et al in view of Miller et al (5,652,717) and Bannister.

Miller shows in figure 2 the acquisition of data from an aircraft 14, col. 2, lines 34-45, and provides for a telecommunication network 22 and internet communication, col. 3, lines 4-18, 65 et seq.

Miller is relied upon to show that it is conventional to manipulate the data received from the aircraft 14 through an Internet connection 30.

Claims 60 and 71 only recite that the data reception unit is in communication with the cellular infrastructure via the Internet.

Cellular infrastructure is clearly as 24 in Ross et al.

The Internet connection 30 which is at the reception unit provides an Internet access as disclosed by Miller

Accordingly, it would have been obvious to one having ordinary skill in the art to provide an internet connection for communication purposes in a reception unit because

the specific use of providing an internet connection for communication purposes in an reception unit concerned with aircraft data acquisition and transmission is clearly suggested by Miller, see col. 3, lines 25-44, and specifically lines 40-44, for interactive internet support.

Bannister shows a data acquisition system and provides for conventional PSTN interfaced with the Internet, see figure 1 and related disclosure.

Accordingly, Bannister teaches the artisan the combined use of PSTN AND INTERNET.

Accordingly, at the time the invention was made, the combined use of cellular communication, Internet access, and PSTN are all well known and conventional as evidenced by the teachings of the references as discussed above.

Once the skilled artisan recognizes that the internet is employed at the reception unit of Ross as suggested by Miller, the skilled artisan would further recognize the use and advantages of employing conventional PSTN cellular infrastructure for internet communication as evidenced by the teachings of Bannister.

Patentable invention is not involved in employing Internet connection through the cellular phone system such as conventional (PSTN), see Bannister.

Claims 73 and 74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ross et al in view of Polivka et al, cited by applicants.

Polivka shows in an aircraft data acquisition and transmission means as shown in figure 3a and 3b, and provides for the acquisition of data such as a video camera 327 I figure 3a, compressing (323, figure 3a), encrypting (such as forward error correction

Art Unit: 2636

encoder unit 330, figure 3b), segmenting and constructing packets of data from the segmented flight data (PSK/SPREAD spectrum modulator 361 in figure 3b), see col. 10, lines 13 et seq.

With respect to claim 74, the acknowledgement of receipt of the transmitted data is no more than the response due to the video teleconference as provided for in Polivka, col. 10, such is no more than conventional bi-directional communication and would not involve patentable invention.

Claims 59, 62-70, and 75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ng, already of record, in view of McGraw-Hill Illustrated Telecom Dictionary by Jade Clayton, newly cited.

Ng shows an aircraft data transmission system, the aircraft having a data acquisition unit in the form of an SMDU 12 comprising a communication unit 60 located in the aircraft and in communication with the data acquisition unit 12; a spread spectrum TDMA network 30 and a data reception unit in the form of NSIU 22 in communication with the network 30.

Ng illustrates a car 16, however suggests that such is employed on an airplane, col. 3, lines 22-28. Accordingly, the disclosure of Ng is with respect to its application to airplane 16.

Ng fails to state that the spread spectrum TDMA is a cellular infrastructure.

The Telecom dictionary sets forth TDMA as a conventional use in spread spectrum cellular radio transmitters that the cellular telephone industry uses, see attached definition of TDMA.

Accordingly, the it would have been obvious to one having ordinary skill in the art to associate the spread spectrum TDMA communication network 30 of Ng with a cellular infrastructure because the association of spread spectrum TDMA with cellular infrastructure is clearly taught in the Telecom dictionary.

The artisan would associate the TDMA spread spectrum network 30 of Ng as a cellular network as used by the telephone industry.

Ng sets forth the constraints for the use of spread spectrum TDMA such as a low power spread spectrum TDMA 60 which transmits data to the NSIU from the SMDU, col. 4, lines 1-8.

Ng fails to suggest that communication is initiated automatically upon **landing** of the aircraft.

Ng suggests that communication is initiated automatically upon an aircraft 16 passing proximate to a fixed NSIU station 24, col. 4, lines 62 et seq.

It is contended the Ng's aircraft passing proximate to the fixed station 22 is analogous to the claimed landing of the aircraft, especially in view of the constraints imposed due to operating range of the network.

Ng further discloses the TDMA spread spectrum network 30 has an operating range of $\frac{1}{4}$ to $\frac{1}{2}$ mile, col. 4, and lines 17-24.

Art Unit: 2636

It is submitted that when Ng's system is used in combination with an airplane the artisan recognizes that communication between the aircraft's SMDU and the fixed station NSIU only occur within the TDMA spread spectrum network operating range of $\frac{1}{4}$ to $\frac{1}{2}$ mile range. It is submitted that such communication is only accomplished when the aircraft is approaching or landing towards the NSIU 22, which is fixed.

The artisan recognizes that at such low operating range with respect to the fixed NSIU only provides for a landing situation with respect to the aircraft 16, which passes proximate to the NSIU 22.

In view of such range, the SMDU within the aircraft is only enabled to communicate with the data reception unit 22 when the airplane is within the $\frac{1}{4}$ to $\frac{1}{2}$ mile range, (the polling signal from the NSIU 22 that is proximate the airplane initiates communication), col. 4, lines 37 et seq., and col. 5, lines 1-5

Communication is automatically initiated when an airplane 16 passes proximate to the NSIU 22, col. 4, lines 62 et seq.

Accordingly, the claimed limitation "wherein the communication is initiated automatically upon landing of the aircraft" is clearly taught by Ng.

In view of the limited operating range due to the TDMA spread spectrum network the aircraft's SMDU continues to communicate or communicates through the TDMA network.

Accordingly, the claim limitation of "a cellular infrastructure in communication with said communications unit after the aircraft has landed" is clearly taught by Ng.

Art Unit: 2636

Claims 60, 61, 71, and 72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ng and the Telecom dictionary as applied to claims 59 above, and further in view of Bannister.

Claims 60 and 712 recite the Internet and claims 61 and 72 recite the public switched telephone network (PSTN).

Ng provides for bi-directional communication between the MCC and SMDU through WAN and LAN networks.

It is submitted that it is well known to employ conventional Internet service as well as conventional PSTN network in combination with LAN and WAN networks.

Once there is suggestion to employ LAN and WAN networks, then the artisan recognizes that the Internet and PSTN are conventional ways of communicating through such networks.

Patentable invention is not realized in employing the Internet and PSTN as communication vehicles in Ng, especially with Ng's teaching of LAN and WAN networks.

Bannister shows a data acquisition system and provides for conventional PSTN interfaced with the Internet, see the comments re Bannister above.

Both Ng and Bannister are concern with telecommunication of data and are analogous.

Bannister teaches the artisan the combined use of PSTN AND INTERNET.

Accordingly, at the time the invention was made, the combined use of cellular communication, Internet access, and PSTN are all well known and conventional as evidenced by the teachings of the references as discussed above.

The skilled artisan would further recognize the use and advantages of employing conventional PSTN cellular infrastructure for Internet communication as evidenced by the teachings of Bannister.

Patentable invention is not involved in employing Internet connection through the cellular phone system such as conventional (PSTN).

It would have been obvious to one having ordinary skill in the art to employ the Internet and PSTN in the telecommunication system of Ng because Bannister suggests the use and advantages of such in a telecommunication system.

Claims 73 and 74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ng as applied to claim 69 above, and further in view of Polivka.

See the comments re Polivka above.

It would have been obvious to one having ordinary skill in the art to employ the compressing, encrypting, segmenting, and the construction of packets in the telecommunication system of Ng because the use and advantages of compressing, encrypting, segmenting, and the construction of packets in the telecommunication system are taught by Polivka.

Response to Arguments

Applicant's arguments filed 12-11-03 have been fully considered but they are not persuasive. Applicants argue that patentable features previously claimed in dependent claims 60, 61, 71, and 72 are placed in independent claim format and further states that if at least one of the presented claims is not rejectable on any ground and is claiming the same invention as at least claim of the patent, the examiner should proceed to propose an interference.

The examiner contends for the reasons advanced above, the mere placement of these claims in independent form does not overcome the rejection as applied to the dependent claims 60, 61, 71, and 72 and now independent claims 60, 61, 71, and 72.

Accordingly, an interference is not proper.

Applicants argue that the prior art fails to suggest the use a public switched telephone network (PSTN) (claims 61 and 72).

Applicants argue that the prior art fails to suggest the use of the Internet, (claims 60 and 71).

In response to these arguments Ross et al shows communication apparatus 24 as being cellular telephone system.

It is noted that Ross does not suggest the use of the cellular infrastructure 24 via the PSTN as recited in claim 61 or the Internet as recited in claim 60.

The examiner contends that the PSTN is conventional and such works in combination with the conventional cellular telephone system of Ross.

The examiner contends that Internet is conventional and the combination of the Internet with cell networks (cellular infrastructure) is conventional.

Art Unit: 2636

Bannister shows such conventionality in showing a cellular infrastructure for example between mobile 650 and base station 640 (cellular infrastructure) and through the PSTN 200 to the Internet 300, see figure 1, col. 5, lines 3-21, col. 7, lines 8-35.

Accordingly, Bannister teaches the communication with a cellular infrastructure via the PSTN or via the Internet.

The examiner contends that Ross's use of a cellular telephone system as the communication link between the aircraft and reception unit (air traffic controller 30) would inherently suggest at least the basic structural apparatus as well as the inherent advantages such being a conventional base station that interfaces with the PSTN, and then either directly from the PSTN to a telephone user or from the PSTN through the Internet to an end user.

Accordingly, the cellular telephone system 24 by its very nature includes a PSTN and accordingly provides for Internet access.

Applicants argue that Miller fails to suggest the combined Internet operative with a cellular infrastructure.

It is submitted that Miller is only relied upon to show that it is well known to manipulate the data received from an aircraft through the Internet.

Miller provides for wireless communication of data from aircraft 14 to station 20 and then the data is wirelessly transmitted from the station 20 to a central location 40.

It is noted that Miller does not state that the communication link is of a cellular nature.

Ross is relied upon for this feature, communication apparatus 24.

Art Unit: 2636

Applicants argue that Bannister does not suggest downloading flight data from an aircraft to a cellular infrastructure and through a PSTN that receives data from the cellular system.

The examiner contends that Bannister was not relied upon for the above suggestion.

As stated in the last office action, Bannister is relied upon to show the conventionality a PSTN interfaced with a cellular system that includes base station 630 and interfaced with the Internet.

The specifics of downloading flight data from an aircraft to a cellular infrastructure and through a PSTN are addressed above with respect to Ross.

Conclusion

In conclusion it is felt that the issue is whether the skilled artisan would interpret the cellular telephone system 24 of Ross to include the basic cell structure such as a base station combined with a PSTN.

In view of the reasons advanced above, the cellular telephone system 24 of Ross includes the basic equipment that makes up the cellular telephone system such as a base station and PSTN.

The second issue is of the Internet combined with the cellular system is shown by Bannister in figure 1, Internet 300 communicating with cellular that includes mobile 650 and base station 640.

It should also be noted that the cellular telephone system infrastructure includes the Internet and PSTN.

Art Unit: 2636

Also, the definition of TDMA as given by the Telecom dictionary clearly links such with a cellular telephone system.

Accordingly, Ng's TDMA system is recognized as a cellular system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DONNIE L. CROSLAND whose telephone number is (703) 305-4388. The examiner can normally be reached on Mon-Fri, 9:30a-6:00p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JEFFERY HOFSSASS can be reached on (703) 305-4717. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



DONNIE L. CROSLAND
Primary Examiner
Art Unit 2636

Dlc
5-19-04